

ABSTRACT OF THE DISCLOSURE

The present invention relates to spindle-shaped goethite particles having an average major axial diameter of 0.05 to 0.18  $\mu\text{m}$ , spindle-shaped hematite particles having an average major axial diameter of 0.05 to 0.17  $\mu\text{m}$ , spindle-shaped magnetic metal particles containing iron as a main component, which exhibit an adequate coercive force, good dispersibility, good oxidation stability and excellent coercive force distribution notwithstanding the average major axial diameter thereof is as small as 0.05 to 0.15  $\mu\text{m}$ , and processes for producing the respective particles. Especially, the spindle-shaped magnetic metal particles containing iron as a main component, have an average major axial diameter of 0.05 to 0.15  $\mu\text{m}$ , an aspect ratio of from 5:1 to 9:1, a size distribution (standard deviation/average major axial diameter) of not more than 0.30, a crystallite size  $D_{110}$  of 130 to 160  $\text{\AA}$ , a Co content of from 0.5 to less than 6 atm% based on whole Fe, an Al content of from more than 10 to less than 20 atm% based on whole Fe, a rare earth element content of from 1.5 to 5 atm% based on whole Fe, an atomic ratio of Al to Co of from more than 2 to 4, a coercive force of 111.4 to 143.2 kA/m, an oxidation stability of saturation magnetization ( $\Delta\sigma_s$ ) of not more than 10%, and an ignition temperature of not less than 130°C.